

**IN THE UNITED STATES DISTRICT COURT FOR THE  
NORTHERN DISTRICT OF ILLINOIS  
EASTERN DIVISION**

LINDA VERBOOM CURRY and	)	
ALLEN CHEUNG,	)	Case No. 1:20-cv-03088
	)	
Plaintiffs,	)	Judge Gary S. Feinerman
	)	
v.	)	Magistrate Judge Sheila M.
	)	Finnegan
THE BOEING COMPANY,	)	
	)	
Defendant.	)	

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**THE BOEING COMPANY’S PARTIAL ANSWER TO PLAINTIFFS’ COMPLAINT**

The Boeing Company (“Boeing”), by and through its attorneys, Winston & Strawn LLP, hereby responds to the Complaint of Plaintiffs Linda Verboom Curry and Allen Cheung (“Plaintiffs”), except as to Counts IV and V, which per the June 3, 2020 order of the Court, Dkt. No. 14, need not be answered at this time.

Boeing denies each and every allegation in the Complaint, except as hereinafter specifically admitted, qualified, or otherwise answered.

1. Linda Verboom Curry is a citizen of the United States of America, domiciled in Satellite Beach, Florida.

**ANSWER:** Boeing is without knowledge or information sufficient to form a belief as to the truth of the allegation of paragraph 1, and therefore, denies the same.

2. Allen Cheung is a citizen of the United States of America, domiciled in Pembroke Pines, Florida.

**ANSWER:** Boeing is without knowledge or information sufficient to form a belief as to the truth of the allegation of paragraph 2, and therefore, denies the same.

2. Defendant Boeing is a Delaware corporation with its principal place of business and corporate headquarters in Chicago, Illinois.

**ANSWER:** Boeing admits the allegations of paragraph 2.

3. Jurisdiction and venue are proper in this Court because Illinois is Defendant Boeing's home state and the decisions as well as misconduct of Defendant that form the basis of this complaint occurred in Chicago or was directed from Chicago.

**ANSWER:** Boeing denies the allegation in paragraph 3 that it engaged in any "misconduct." The conclusions in paragraph 3 regarding jurisdiction and venue are legal conclusions to which no answer is required. Boeing further answers that the allegation in paragraph 3 that Illinois is Boeing's "home state" is too vague to permit an answer and that, if an answer to those allegations is required, Boeing is without knowledge or information sufficient to form a belief as to their truth and therefore, denies the same. Boeing is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations of paragraph 3, and therefore, denies the same.

4. At all times relevant to this complaint, Defendant Boeing Company was engaged in the business of designing, manufacturing, assembling, testing, servicing, marketing, promoting, leasing and selling commercial aircraft as well as providing information and warnings about such aircraft, including the aircraft at issue.

**ANSWER:** Boeing admits that it is in the business of designing, manufacturing, assembling, testing, servicing, marketing, promoting, and selling commercial aircraft, including the design, manufacture, assembly, testing, and selling of the aircraft at issue, as well as providing information and warnings about such aircraft, except for the components, parts, and systems designed, manufactured, assembled, tested, serviced, marketed, promoted, or sold by others, and the components, parts, and systems that were subsequently removed, installed, exchanged, altered, modified, retrofitted, overhauled, or manufactured by others. Except as expressly admitted, Boeing denies the allegations in paragraph 4.

5. The facts of this case highlight a previously hidden and “dirty little secret” of the airline industry: air on Boeing’s commercial aircraft (with the exception of the Boeing 787 Dreamliner) can become contaminated and injure flight crew and passengers. Cabin air comes in through the aircraft’s engines before entering the cabin and cockpit. This is known as a “bleed air” system because outside air is pulled into – and then “bled” off – the airplane’s engines. The air can become contaminated by heated jet engine oil, hydraulic fluid and the toxic by-products of such chemicals.

**ANSWER:** Answering paragraph 5, Boeing admits only that, in accordance with Federal Aviation Administration-approved design specifications, in certain phases of operation, outside air is compressed in the engines of its commercial aircraft (except the 787 model) before being distributed to the cabin. The outside air distributed to the cabin after pressurization in the engines is commonly known as “bleed air.” For more than 50 years, this well-known design feature has been (and continues to be) used throughout the commercial aviation industry with the express approval of the Federal Aviation Administration and other regulators worldwide. Cabin air, like air in any environment, has the potential to become contaminated through a variety of mechanisms. With proper maintenance on the bleed air system, and on the engines and auxiliary power unit that provide air to that system, however, the risk of any contamination is minimized. Moreover, extensive scientific air-quality research completed to date by government agencies, independent researchers, universities, and industry has shown that contaminant levels in cabin air are generally low and consistently comply with applicable health and safety standards. Researchers working with numerous government, academic, and industry groups have consistently concluded that the scientific evidence is insufficient to establish any causal link between bleed air contamination and long-term chronic or serious health issues. Thus, Boeing denies that this design feature is any sort of “secret”. Boeing cannot admit or deny the remaining allegations in paragraph 5 because they are too vague and indefinite to permit a response. To the extent an answer to those

allegations is required, Boeing is without knowledge or information sufficient to form a belief as to their truth, and therefore, denies the same.

6. Air contamination can occur during both primary events (an immediate and identified failure or leak that occurs contemporaneous with the contaminated air event) as well as secondary events (where jet engine oil, hydraulic fluid or the pyrolyzed by-products leaks, “wisps,” “weeps” or “burps” out of an engine over time, becomes lodged in the air system and causes delayed contamination) or a combination of both.

**ANSWER:** Answering paragraph 6, Boeing admits only that cabin air, like air in any environment, has the potential to become contaminated through a variety of mechanisms. With proper maintenance on the bleed air system, and on the engines and auxiliary power unit that provide air to that system, however, the risk of any contamination is minimized. Boeing cannot admit or deny the remaining allegations in paragraph 6 because they are too vague and indefinite to permit an answer. To the extent an answer to those allegations is required, Boeing is without knowledge or information sufficient to form a belief as to the truth of the allegations of paragraph 6, and therefore, denies the same.

7. Contaminated air events can produce distinctive odors, including smells described as a chemical, oily or a “dirty socks” smell.

**ANSWER:** Boeing cannot admit or deny the allegations in paragraph 7 because they are too vague and indefinite to permit an answer. To the extent an answer is required, Boeing is without knowledge or information sufficient to form a belief as to the truth of the allegations of paragraph 7, and therefore, denies the same.

8. The chemical constituents of burning or heated jet engine oil and its byproducts include, but are not limited to, neurotoxins such as organophosphates. Organophosphates are chemical compounds found also in insecticides, herbicides, pesticides, nerve agents, and nerve gases such as Sarin gas.

**ANSWER:** Answering paragraph 8, Boeing admits on information and belief that jet engine oil contains constituents such as organophosphates that can have neurotoxic effects above certain dose levels. Boeing also states that extensive scientific air-quality research completed to date by government agencies, independent researchers, universities, and industry has shown that contaminant levels in cabin air are generally low and consistently comply with applicable health and safety standards. Researchers working with numerous government, academic, and industry groups have consistently concluded that the scientific evidence is insufficient to establish any causal link between bleed air contamination and long-term chronic or serious health issues. Boeing also admits on information and belief that organophosphates are chemicals composed of various numbers and arrangements of carbon atoms attached to phosphate groups and that some chemical compounds found in insecticides, herbicides, pesticides, and nerve agents and gases fall within that broad category of chemicals. Boeing cannot admit or deny the remaining allegations in paragraph 8 because they are too vague and indefinite to permit an answer. To the extent an answer to those allegations is required, Boeing is without knowledge or information sufficient to form a belief as to the truth of the allegations of paragraph 8, and therefore, denies the same.

9. Inhaling contaminated cabin air can cause short-term or transient symptoms as well as permanent and serious personal injury.

**ANSWER:** Answering paragraph 9, Boeing admits only that, depending on the toxicity and dose, toxic air in any environment can cause short-term or transient symptoms as well as possible personal injury. Boeing also states, however, that extensive scientific air-quality research completed to date by government agencies, independent researchers, universities, and industry has shown that contaminant levels in cabin air are generally low and consistently comply with applicable health and safety standards. Researchers working with numerous government,

academic, and industry groups have consistently concluded that the scientific evidence is insufficient to establish any causal link between bleed air contamination and long-term chronic or serious health issues. Except as expressly admitted, Boeing denies the allegations in paragraph 9.

10. Contaminated air events can also cause serious and potentially catastrophic safety issues. Boeing is aware of a number of incidents where flight crew and / or pilots have become ill or incapacitated because of contaminated air events in-flight. For example, in 2001, Sweden's Board of Accident Investigations reported on an in-flight incident where both pilots became ill from a contaminated air event. As Neils Gomer, captain of that aircraft, describes he became confused and severely nauseated and "I just managed to put on my mask, after which I could hardly move. We were sitting there flying at 600 miles an hour, late at night, both of us more or less incapacitated. I could not even raise my hand; I could not talk; it was like I was paralyzed." Many of the 73 passengers on the flight were so deeply asleep it was difficult to wake them up and they appeared to be in a "zombie-like condition." Captain Gomer fears that if he had delayed going on to oxygen, even by seconds, the aircraft could have crashed. The Swedish Board of Accident Investigation identified an oil leak in one of the engines as well as oil residue on different carbon seals as the source of the contamination and concluded that "the risk that crews can, without warning, be subjected to poisonous cabin air that can substantially reduce their capabilities, or that can temporarily disable an individual crew member, constitutes a serious threat to flight safety."

**ANSWER:** Boeing denies the characterization of any referenced document or statement to the extent the document or statement's content, purpose, and context contradict Plaintiffs' selective quotation and portrayal of it. Answering further, Boeing states that there is no reliable data demonstrating a causal link between bleed air contamination and serious or long-term health effects. Extensive scientific air quality research completed to date by government agencies, independent researchers, universities, and industry has shown that contaminant levels in cabin air are generally low and consistently comply with applicable health and safety standards. Researchers working with numerous government, academic, and industry groups have consistently concluded that the scientific evidence is insufficient to establish any causal link between bleed air contamination and long-term chronic or serious health issues. Except as expressly admitted, Boeing denies the allegations in paragraph 10.

11. By 2007, even Boeing's senior engineers were frustrated with Boeing's refusal to address this safety issue. As senior Boeing engineer George Bates noted, when commenting on Boeing's utter lack of effort in addressing toxic cabin air events on its airplanes: "*Bottom line is I think we are looking for a tombstone before anyone with any horsepower is going to take interest.*"

**ANSWER:** Boeing denies the characterization of any referenced document or statement to the extent the document or statement's content, purpose, and context contradict Plaintiffs' selective quotation and portrayal of it. Answering further, Boeing states that, for more than 50 years, bleed air designs have been (and continue to be) used throughout the commercial aviation industry with the express approval of the Federal Aviation Administration and other regulators worldwide. With proper maintenance on the bleed air system, and on the engines and auxiliary power unit that provide air to that system, the risk of any contamination is minimized. Moreover, extensive scientific air-quality research completed to date by government agencies, independent researchers, universities, and industry has shown that contaminant levels in cabin air are generally low and consistently comply with applicable health and safety standards. Researchers working with numerous government, academic, and industry groups have consistently concluded that the scientific evidence is insufficient to establish any causal link between bleed air contamination and long-term chronic or serious health issues. Except as expressly admitted, Boeing denies the allegations in paragraph 11.

12. The tombstone Mr. Bates predicted came in 2012 with the death of a British Airways pilot, Richard Westgate. Post-mortem testing of Mr. Westgate's blood and tissue showed elevated autoantibody markers, indicative of neural degeneration. Published medical articles about Mr. Westgate's death confirm that he suffered a nervous system injury consistent with organophosphate-induced neurotoxicity. Duke University Professor Abou-Donia noted that Westgate's injury was "one of the worst cases of organophosphate [OP] poisoning [he had] come across."

**ANSWER:** Boeing denies the characterization of any referenced document or statement to the extent the document or statement's content, purpose, and context contradict Plaintiffs' selective quotation and portrayal of it. Answering further, Boeing denies that the post-mortem

testing and purported findings, to the extent they identify bleed air contamination as the cause of Mr. Westgate's death, are scientifically valid. There is no reliable data demonstrating a causal link between bleed air contamination and serious or long-term health effects. Extensive scientific air-quality research completed to date by government agencies, independent researchers, universities, and industry has shown that contaminant levels in cabin air are generally low and consistently comply with applicable health and safety standards. Researchers working with numerous government, academic, and industry groups have consistently concluded that the scientific evidence is insufficient to establish any causal link between bleed air contamination and long-term chronic or serious health issues. Boeing further denies that Dr. Abou-Donia's opinions are scientifically reliable or generally accepted by the scientific community. Except as expressly admitted, Boeing denies the allegations in paragraph 12.

13. But despite Mr. Westgate's death, Boeing has still refused to take any remedial action. Boeing has failed to rectify its flawed and defective bleed air design. Boeing has failed to design, install, implement or provide sensors or alarms to notify the flight crew about contaminated air events so action can be taken to reduce or minimize exposure. Boeing has also failed to design, implement, retrofit or install an air converter or filter into the bleed air system to remove, reduce or mitigate the toxins. Boeing has also failed to provide adequate warnings or training about the dangers.

**ANSWER:** Boeing denies the allegations in paragraph 13.

14. Boeing has made it clear that safety concerns about contaminated air events are not a priority and, unless there is a financial advantage for Boeing (i.e. that a converter could "buy its way onto the plane") no real efforts will be made to remedy this unreasonably dangerous condition.

**ANSWER:** Boeing denies the allegations in paragraph 14.

15. On January 19, 2018, Linda Curry and Allen Cheung were working as flight attendants onboard a Boeing model 767-300 aircraft, Federal Aviation Administration registration number N644UA ("the subject aircraft"), operated by United Airlines as Flight 71 ("the flight"), which departed from Amsterdam and was destined for Newark, NJ.



**ANSWER:** Boeing is without knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 15 relating to the flight attendant crew. On information and belief, Boeing admits the remaining allegations in paragraph 15.

16. The subject aircraft was designed and manufactured by defendant Boeing.

**ANSWER:** Boeing admits that, in accordance with the design regulations of the Federal Aviation Administration and the Federal Aviation Administration-approved Type Certificate (as confirmed in the Airworthiness Certificate), it designed and assembled the subject aircraft, except for the components, parts, and systems designed or manufactured by others, and the components, parts, and systems that were subsequently removed, installed, exchanged, altered, modified, retrofitted, overhauled, or manufactured by others.

17. About 45 minutes into the flight, there was a contaminated air event onboard when flight crew and passengers reported a “dirty sock” smell. A number of the flight crew and several passengers became ill. A number of flight attendants had to be put on oxygen, including Plaintiffs.

**ANSWER:** Boeing is without knowledge or information sufficient to form a belief as to the truth of the allegations of paragraph 17, and therefore, denies the same.

18. The captain contacted MedLink and made the decision to turn the plane around and return to Amsterdam.

**ANSWER:** Answering paragraph 18, Boeing admits on information and belief that the subject flight was diverted to, and landed in, Amsterdam. Boeing is without knowledge or information sufficient to form a belief as to the truth of the allegations of paragraph 18, and therefore, denies the same.

19. After landing in Amsterdam, a number of the flight crew and several passengers received medical evaluation and treatment.

**ANSWER:** Boeing is without knowledge or information sufficient to form a belief as to the truth of the allegations of paragraph 19, and therefore, denies the same.

20. Due to their exposure to contaminated cabin air, Plaintiffs suffered – and continue to suffer from – short-term and long-term health effects including nausea, confusion, pain, fatigue and exhaustion, balance problems, decreased motor skills, neuropathy as well as numbness and tingling in extremities, joint and muscle pain, tremors, dizziness, vertigo, shortness of breath, problems sleeping, headaches, memory loss, trouble concentrating, cognitive defects, emotional distress, mental anguish, depression, anxiety and aggravation of pre-existing medical conditions.

**ANSWER:** Boeing denies the allegations in paragraph 20.

21. As a result of this event, Plaintiffs have suffered loss of wages and wage-earning capacity in the past and in the future.

**ANSWER:** Boeing denies the allegations in paragraph 21.

22. With corporate headquarters in Chicago, Boeing employs more than 165,000 people across the United States and in more than 65 countries. Boeing claims it has “one of the most diverse, talented and innovative workforces anywhere.”

**ANSWER:** Boeing admits the allegations in paragraph 22.

23. Boeing markets itself as “the world’s largest aerospace company and leading manufacturer of commercial jetliners” and claims “a long tradition of aerospace leadership and innovation” including “creating advanced technology solutions.” Boeing asserts that “safety is its primary consideration” [sic]

**ANSWER:** Boeing admits the allegations in paragraph 23.

24. For at least sixty years, Boeing, and its predecessors, knew (or should have known) that bleed air can become contaminated and cause serious danger to the health and welfare of crew members and passengers.

**ANSWER:** Boeing denies the allegations in paragraph 24. By way of further answer, Boeing avers that the potential for small amounts of engine oil to enter the air distribution system has been well-known by aviation regulators for years. The Federal Aviation Administration has long been aware of this issue, and after comprehensive review and evaluation, has confirmed that the bleed air designs of Boeing aircraft (as well as the bleed air designs of other manufacturers’

aircraft) comply with its detailed regulations regarding air quality. With proper maintenance on the bleed air system, and on the engines and auxiliary power unit that provide air to that system, the risk of any contamination is minimized. In addition, extensive scientific air-quality research completed to date by government agencies, independent researchers, universities, and industry has shown that contaminant levels in cabin air are generally low and consistently comply with applicable health and safety standards. Researchers working with numerous government, academic, and industry groups have consistently concluded that the scientific evidence is insufficient to establish any causal link between bleed air contamination and long-term chronic or serious health issues.

25. Boeing has been put on notice, on more than a hundred occasions, that its bleed air system airplanes are unreasonably dangerous and can cause serious acute and permanent injuries to flight crew and passengers.

**ANSWER:** Boeing denies the allegations in paragraph 25.

26. Boeing has been long aware that heated engine oil and its toxic byproducts can enter the cabin air system. As early as 1953, Boeing knew the bleed air system was “increasingly subject to unacceptable contamination” and that a decontamination or filter unit was needed to “purify engine bleed air to the point where it is suitable for cabin air conditioning.” Yet, to date, Boeing has still not designed, created, implemented, retrofitted or added a filter or converter to the air circulation system of the aircrafts that can safely and effectively protect crew members and passengers from contaminated air events.

**ANSWER:** Boeing denies the characterization of any referenced document or statement to the extent the document or statement’s content, purpose, and context contradict Plaintiffs’ selective quotation and portrayal of it. Answering further, Boeing states that the aviation industry has long known of the potential for small amounts of engine oil to enter air conditioning systems and denies that this poses serious health issues of the type alleged by Plaintiffs. With proper maintenance on the bleed air system, and on the engines and auxiliary power unit that provide air to that system, the risk of any contamination is minimized. The Federal Aviation Administration

and other regulators worldwide have carefully reviewed and analyzed the design of bleed air systems for Boeing aircraft (as well as the bleed air designs of other manufacturers' aircraft) and certified them as safe and airworthy. In addition, Boeing states that there is no reliable data demonstrating a causal link between bleed air contamination and serious or long-term health effects. Extensive scientific air-quality research completed to date by government agencies, independent researchers, universities, and industry has shown that contaminant levels in cabin air are generally low and consistently comply with applicable health and safety standards. Researchers working with numerous government, academic, and industry groups have consistently concluded that the scientific evidence is insufficient to establish any causal link between bleed air contamination and long-term chronic or serious health issues. Except as expressly admitted, Boeing denies the allegations in paragraph 26.

27. Boeing has known since the 1950s that air cabin contamination does not affect everyone to the same degree and some people are physiologically more susceptible to even trace amounts of contaminants.

**ANSWER:** Answering paragraph 27, Boeing states that there is no reliable data demonstrating a causal link between bleed air contamination and serious or long-term health effects. Extensive scientific air-quality research completed to date by government agencies, independent researchers, universities, and industry has shown that contaminant levels in cabin air are generally low and consistently comply with applicable health and safety standards. Researchers working with numerous government, academic, and industry groups have consistently concluded that the scientific evidence is insufficient to establish any causal link between bleed air contamination and long-term chronic or serious health issues. Except as expressly admitted, Boeing denies the allegations in paragraph 27.

28. Boeing is also aware that because of the increased breathing and metabolic rate as well as increased activity of the flight crew, they are more susceptible to injury from contaminated air events.

**ANSWER:** Answering paragraph 28, Boeing states that there is no reliable data demonstrating a causal link between bleed air contamination and serious or long-term health effects. Extensive scientific air-quality research completed to date by government agencies, independent researchers, universities, and industry has shown that contaminant levels in cabin air are generally low and consistently comply with applicable health and safety standards. Researchers working with numerous government, academic, and industry groups have consistently concluded that the scientific evidence is insufficient to establish any causal link between bleed air contamination and long-term chronic or serious health issues. Except as expressly admitted, Boeing denies the allegations in paragraph 28.

29. Toxic cabin air events occur on every type and model of Boeing's airplanes that employ the bleed air system of cabin ventilation.

**ANSWER:** Answering paragraph 29, Boeing admits only that the outside air distributed to the cabin after pressurization in the engines is commonly known as "bleed air." With proper maintenance on the bleed air system, and on the engines and auxiliary power unit that provide air to that system, the risk of any contamination is minimized. Answering further, Boeing states that extensive scientific air-quality research completed to date by government agencies, independent researchers, universities, and industry has shown that contaminant levels in cabin air are generally low and consistently comply with applicable health and safety standards. Researchers working with numerous government, academic, and industry groups have consistently concluded that the scientific evidence is insufficient to establish any causal link between bleed air contamination and long-term chronic or serious health issues. Except as expressly admitted, Boeing denies the allegations in paragraph 29.

30. Contaminated air events occur every day. Boeing tracked over 1,100 toxic air events from 1999 to 2013 and the Defendant assessed 823 of those events as being “potential safety issues.” Boeing’s manager for its Air Quality Team, David Space, acknowledges that it is reasonable to expect 4.4 contaminated cabin air events (tracked back to oil or hydraulic fluid) each and every day in the United States of America.

**ANSWER:** Boeing denies the characterization of any referenced document or statement to the extent the document or statement’s content, purpose, and context contradict Plaintiffs’ selective quotation and portrayal of it. Boeing denies the allegations in paragraph 30.

31. The adverse health effects of contaminated air events are well-documented and serious. The FAA’s Office of Aerospace Medicine expert, George Day, describes contaminated air events as when “a potentially toxic environment is created by contaminated bleed air” and the FAA recognizes that exposure to contaminated air events can “result in a spectrum of adverse health effects.”

**ANSWER:** Boeing denies the characterization of any referenced document or statement to the extent the document or statement’s content, purpose, and context contradict Plaintiffs’ selective quotation and portrayal of it. Answering further, Boeing states that the aviation industry has long known of the potential for small amounts of engine oil to enter air conditioning systems and denies that this poses serious health issues of the type alleged by Plaintiffs. With proper maintenance on the bleed air system, and on the engines and auxiliary power unit that provide air to that system, the risk of any contamination is minimized. The Federal Aviation Administration and other regulators worldwide have carefully reviewed and analyzed the design of bleed air systems for Boeing aircraft (as well as the bleed air designs of other manufacturers’ aircraft) and certified them as safe and airworthy. In addition, Boeing states that there is no reliable data demonstrating a causal link between bleed air contamination and serious or long-term health effects. Extensive scientific air-quality research completed to date by government agencies, independent researchers, universities, and industry has shown that contaminant levels in cabin air are generally low and consistently comply with applicable health and safety standards.

Researchers working with numerous government, academic, and industry groups have consistently concluded that the scientific evidence is insufficient to establish any causal link between bleed air contamination and long-term chronic or serious health issues. Except as expressly admitted, Boeing denies the allegations in paragraph 31.

32. The organophosphate chemicals found in Boeing's jet engine compartments are highly neurotoxic, akin to sarin gas. The World Health Organization (WHO) calls the neurotoxins at issue "major hazards to human health" for which "there is no safe level of ingestion" and cautions that exposure through inhalation should be minimized.

**ANSWER:** Boeing denies the characterization of any referenced document or statement to the extent the document or statement's content, purpose, and context contradict Plaintiffs' selective quotation and portrayal of it. Answering further, Boeing admits on information and belief that jet engine oil contains constituents such as organophosphates that can have neurotoxic effects above certain dose levels. Answering further, Boeing states that there is no reliable data demonstrating a causal link between bleed air contamination and serious or long-term health effects. Boeing also states that extensive scientific air-quality research completed to date by government agencies, independent researchers, universities, and industry has shown that contaminant levels in cabin air are generally low and consistently comply with applicable health and safety standards. Researchers working with numerous government, academic, and industry groups have consistently concluded that the scientific evidence is insufficient to establish any causal link between bleed air contamination and long-term chronic or serious health issues. Except as expressly admitted, Boeing denies the allegations in paragraph 32.

33. Researchers confirm that exposure to these irritating and toxic chemicals can cause "impairment of neuropsychological function" which can "become more debilitating after time, with problems of loss of cognitive function and memory problems emerging."

**ANSWER:** Boeing denies the characterization of any referenced document or statement to the extent the document or statement's content, purpose, and context contradict Plaintiffs' selective quotation and portrayal of it. Answering further, Boeing admits only that, depending on the toxicity and dose, toxic air in any environment can cause short-term or transient symptoms as well as possible personal injury. Answering further, Boeing states that there is no reliable data demonstrating a causal link between bleed air contamination and serious or long-term health effects. Boeing also states that extensive scientific air-quality research completed to date by government agencies, independent researchers, universities, and industry has shown that contaminant levels in cabin air are generally low and consistently comply with applicable health and safety standards. Researchers working with numerous government, academic, and industry groups have consistently concluded that the scientific evidence is insufficient to establish any causal link between bleed air contamination and long-term chronic or serious health issues. Except as expressly admitted, Boeing denies the allegations in paragraph 33.

34. Even Boeing acknowledges that flight attendants and passengers develop "real symptoms" from these events.

**ANSWER:** Boeing denies the characterization of any referenced document or statement to the extent the document or statement's content, purpose, and context contradict Plaintiffs' selective quotation and portrayal of it. Answering further, Boeing states that there is no reliable data demonstrating a causal link between bleed air contamination and serious or long-term health effects. Extensive scientific air-quality research completed to date by government agencies, independent researchers, universities, and industry has shown that contaminant levels in cabin air are generally low and consistently comply with applicable health and safety standards. Researchers working with numerous government, academic, and industry groups have consistently



concluded that the scientific evidence is insufficient to establish any causal link between bleed air contamination and long-term chronic or serious health issues. Except as expressly admitted, Boeing denies the allegations in paragraph 34.

35. Published articles acknowledge that exposure to oil fumes can cause “both acute and chronic neurological and respiratory symptoms” and can compromise flight safety. As one study noted, “a clear cause and effect relationship has been identified” between contaminated air events and the development of acute and chronic adverse effects involving the neurological and neurobehavioral systems.

**ANSWER:** Boeing denies the characterization of any referenced document or statement to the extent the document or statement’s content, purpose, and context contradict Plaintiffs’ selective quotation and portrayal of it. Answering further, Boeing states that there is no reliable data demonstrating a causal link between bleed air contamination and serious or long-term health effects. Extensive scientific air-quality research completed to date by government agencies, independent researchers, universities, and industry has shown that contaminant levels in cabin air are generally low and consistently comply with applicable health and safety standards. Researchers working with numerous government, academic, and industry groups have consistently concluded that the scientific evidence is insufficient to establish any causal link between bleed air contamination and long-term chronic or serious health issues. Except as expressly admitted, Boeing denies the allegations in paragraph 35.

36. Harvard Professor, as well as Boeing consultant and retained expert, Jack Spengler confirms that flight crews “complain of headaches and eye, skin and upper airway irritation in the short term but go on to experience neuropsychological impairment” as well as other chronic conditions.

**ANSWER:** Boeing denies the characterization of any referenced document or statement to the extent the document or statement’s content, purpose, and context contradict Plaintiffs’ selective quotation and portrayal of it. Answering further, Boeing states that there is no reliable

data demonstrating a causal link between bleed air contamination and serious or long-term health effects. Extensive scientific air-quality research completed to date by government agencies, independent researchers, universities, and industry has shown that contaminant levels in cabin air are generally low and consistently comply with applicable health and safety standards. Researchers working with numerous government, academic, and industry groups have consistently concluded that the scientific evidence is insufficient to establish any causal link between bleed air contamination and long-term chronic or serious health issues. Except as expressly admitted, Boeing denies the allegations in paragraph 36.

37. In 2004, Boeing launched the Boeing 787 Dreamliner, a commercial aircraft that does not use a bleed air system. The Dreamliner air system eliminates the risk of engine oil decomposition products being introduced in the cabin air supply. One of the reasons Boeing developed a new air supply system for the Dreamliner was to eliminate “engine contaminants potentially entering cabin air supply- Improved Air Quality.”

**ANSWER:** Answering paragraph 37, Boeing admits that the 787 model aircraft does not use engine bleed air for the pressurization and air conditioning systems and further that the no-bleed system on the 787 model aircraft was selected for reasons of energy efficiency. Answering further, Boeing states that the allegations relating to the “launch” of the 787 program are too vague and indefinite to permit a response. To the extent an answer to those allegations is required, Boeing is without knowledge or information sufficient to form a belief as to the truth of the allegations of paragraph 37, and therefore, denies the same. Except as expressly admitted, Boeing denies the allegations in paragraph 37.

38. ***Boeing has failed to investigate, study, identify or quantify the toxins present during a contaminated air event:*** As a threshold step to appropriately addressing the safety hazard of contaminated air events, Boeing needed to create a list of possible contaminants present during a cabin air event. To date, Boeing still has not finalized a list of bleed air and cabin contaminants or surrogates of interest.

**ANSWER:** Answering paragraph 38, Boeing states that the allegations relating to a “list of bleed air and cabin contaminants or surrogates of interest” are too vague and indefinite to permit a response. Boeing denies the remaining allegations in paragraph 38.

39. Boeing has never captured, documented, evaluated, assessed or analyzed a contaminated air incident in-flight. Shockingly, even today, Boeing cannot tell the public what toxins are even present during a contaminated air event or at what levels. Boeing’s executive Jacob Bowen admits he has “never seen any data off of an actual airplane” during a contaminated air event. Boeing’s senior engineer George Bates confirms that Boeing has “no data of air contamination during a fume or upset event.” Rather, Boeing’s typical investigation of a contaminated air event involves examining the airplane hours to days after the event, by which time the doors have been opened, the passengers and crew have disembarked, and the contaminated air has dissipated. Even Boeing’s chemist Jean Ray agrees that “unless you’re actually there monitoring” during the contaminated air incident, “there’s no way to know for sure what contaminants were there during that event.” So while Boeing knows it is exposing its customers to various levels of poisonous gas, Boeing has done nothing to study the levels of gas present, their varying causes, or the adverse health effects on passengers and crew.

**ANSWER:** Boeing denies the characterization of any referenced document or statement to the extent the document or statement’s content, purpose, and context contradict Plaintiffs’ selective quotation and portrayal of it. Answering further, Boeing states that extensive scientific air-quality research completed to date by government agencies, independent researchers, universities, and industry has shown that contaminant levels in cabin air are generally low and consistently comply with applicable health and safety standards. Researchers working with numerous government, academic, and industry groups have consistently concluded that the scientific evidence is insufficient to establish any causal link between bleed air contamination and long-term chronic or serious health issues. Except as expressly admitted, Boeing denies the allegations of paragraph 39.

40. All in-flight air samples done to date thus capture only normal flight operations. And even that data is alarming: the neurotoxin tricresyl phosphate (TCP) has been found on airplanes during even normal operation. Independent researchers confirm that, when cabin air was tested even under normal flying conditions, “significant concentrations of organophosphate neurotoxins and other noxious substances in cabin air” were found. In 2009, when investigative

reporters secretly took wipe samples from inside a number of airplanes, all under normal operations, “out of 31 samples, 28 were found positive for TCP.”

**ANSWER:** Boeing denies the characterization of any referenced document or statement to the extent the document or statement’s content, purpose, and context contradict Plaintiffs’ selective quotation and portrayal of it. Answering further, Boeing states that extensive scientific air-quality research completed to date by government agencies, independent researchers, universities, and industry has shown that contaminant levels in cabin air are generally low and consistently comply with applicable health and safety standards. Researchers working with numerous government, academic, and industry groups have consistently concluded that the scientific evidence is insufficient to establish any causal link between bleed air contamination and long-term chronic or serious health issues. Except as expressly admitted, Boeing denies the allegations of paragraph 40.

41. Boeing consistently represented that it was committed to studying and gaining “a comprehensive understanding of air quality components through research and analysis.” In reality, Boeing repeatedly cut or removed funding from air quality projects.

**ANSWER:** Boeing admits that it continues to study air quality through internal research and analysis as well as supporting and monitoring of outside research. By way of further answer, Boeing states that even though researchers working with numerous government, academic, and industry groups have consistently concluded that the scientific evidence is insufficient to establish any causal link between cabin air quality and long-term or serious health effects, Boeing has, over the years, researched and analyzed air quality, including by supporting and monitoring outside research, with the ultimate goal of enhancing passenger and flight crew comfort without compromising flight safety. Extensive scientific air-quality research completed to date by government agencies, independent researchers, universities, and industry has shown that contaminant levels in cabin air are generally low and consistently comply with applicable health

and safety standards. The Federal Aviation Administration and other regulators worldwide have carefully reviewed and analyzed the design of bleed air systems for Boeing aircraft (as well as the bleed air designs of other manufacturers' aircraft) and certified them as safe and airworthy. Answering further, Boeing denies the characterization of any referenced document or statement to the extent the document or statement's content, purpose, and context contradict Plaintiffs' selective quotation and portrayal of it, and Boeing denies the remaining allegations in paragraph 41.

42. ***Boeing downplayed, minimized and misrepresented the true incidence rate for contaminated air events.*** Boeing has repeatedly provided inaccurate or outdated incidence statistics to the traveling public and flight crews. Through these misrepresentations, Boeing encouraged complacency, deterred and distracted research efforts and impeded or prevented development and implementation of safer technologies [sic]

**ANSWER:** Boeing denies the allegations in paragraph 42.

43. ***Boeing failed to develop, install or implement filters or converters.*** Feasible and effective filters and converters, which could remove or significantly reduce airborne toxins, have been available since 2003. The most well-tested of these is the Combined Hydrocarbon Ozone Converters (CHOC) which Boeing could have, and should have, installed on its bleed air planes. CHOC converters function similar to a filter except the CHOC captures the toxic contaminants and turns those chemicals into more benign compounds. CHOC converters are effective at reducing contaminants, thus making the bleed air system safer for passengers and crew.

**ANSWER:** Answering paragraph 43, Boeing states that for more than 50 years, bleed air designs have been (and continue to be) used throughout the commercial aviation industry with the express approval of the Federal Aviation Administration and other regulators worldwide. With proper maintenance on the bleed air system, and on the engines and auxiliary power unit that provide air to that system, the risk of any contamination is minimized. Extensive scientific air-quality research completed to date by government agencies, independent researchers, universities, and industry has shown that contaminant levels in cabin air are generally low and consistently comply with applicable health and safety standards. Answering further, Boeing states that the allegations relating to the "feasib[ility]" and other characteristics of converters are too vague and

indefinite to permit a response. Except as expressly admitted, Boeing denies the allegations in paragraph 43.

44. Adding CHOC converters to Boeing planes would be easy, as the CHOC slides right into the same slot in the bleed air system as the existing ozone converter. The CHOC unit actually fits into “the same envelope space as the ozone converter” and is essentially a drop-in replacement for the ozone converter which provides advancement “at little to no extra cost.” The CHOC has the same durable, lightweight design and same long-lasting, high efficiency as the currently utilized ozone converter. As Boeing’s lead engineer and FAA designated representative Jane Vitkuske noted, the benefits of the CHOC technology include “minimal cost” and little “weight impact.”

**ANSWER:** Boeing denies the characterization of any referenced document or statement to the extent the document or statement’s content, purpose, and context contradict Plaintiffs’ selective quotation and portrayal of it. By way of further answer, Boeing states that even though researchers working with numerous government, academic, and industry groups have consistently concluded that the scientific evidence is insufficient to establish any causal link between cabin air quality and long-term or serious health effects, Boeing has, over the years, monitored the state of the art with respect to air quality with the ultimate goal of enhancing passenger and flight crew comfort without compromising flight safety. The Federal Aviation Administration and other regulators worldwide have carefully reviewed and analyzed the design of bleed air systems for Boeing aircraft (as well as the bleed air designs of other manufacturers’ aircraft) and certified them as safe and airworthy. Answering further, at the time the subject aircraft was designed, assembled, and delivered, the state of the art had not progressed to the point where CHOC converters were reliable or maintainable in a commercial aircraft environment. Boeing also states that the allegations characterizing CHOC converters are too vague and indefinite to permit a response. Except as expressly admitted, Boeing denies the allegations in paragraph 44.

45. Boeing’s main competitor, Airbus, started installing CHOC converters on Airbus planes in 2006 to 2007. Boeing has still not adopted or implemented this safer alternatives [sic].

**ANSWER:** Answering paragraph 45, Boeing states that at the time the subject aircraft was designed, assembled, and delivered, the state of the art had not progressed to the point where CHOC converters were reliable or maintainable in a commercial aircraft environment. Boeing also states that the allegations characterizing Boeing's adoption or implementation of safe alternatives are too vague and indefinite to permit a response. Boeing is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 45, and therefore, denies the same.

46. Boeing consistently and repeatedly refused to allocate adequate resources for the research, development and installation of converters or sensors. Indeed, Boeing repeatedly cut or eliminated budgets for such research and development. On multiple occasions, Boeing put entire air quality projects "on hold" or delayed approving funding by months and even years.

**ANSWER:** Answering paragraph 46, Boeing states that even though researchers working with numerous government, academic, and industry groups have consistently concluded that the scientific evidence is insufficient to establish any causal link between cabin air quality and long-term or serious health effects, Boeing has, over the years, monitored the state of the art with respect to air quality with the ultimate goal of enhancing passenger and flight crew comfort without compromising flight safety. Boeing has researched, analyzed, and assessed air quality issues and devices intended to detect, eliminate, and/or reduce contamination on the rare occasions when it occurs. This work includes support for, and monitoring of, outside activities on air quality research and technology assessment. The Federal Aviation Administration and other regulators worldwide have carefully reviewed and analyzed the design of bleed air systems for Boeing aircraft (as well as the bleed air designs of other manufacturers' aircraft) and certified them as safe and airworthy. Answering further, at the time the subject aircraft was designed, assembled, and delivered, the state of the art had not progressed to the point where sensors to identify bleed air contaminants or

CHOC converters were reliable or maintainable in a commercial aircraft environment. Nor have such sensors been successfully validated for use on commercial pressurized aircraft even today, although industry-wide initiatives to evaluate new technologies are ongoing. Even after such validation, sensors would still need to be demonstrated as safe and airworthy for use on commercial pressurized aircraft before being certified. To Boeing's knowledge, currently no certified commercial jet transport aircraft has a bleed air system that uses sensors to identify bleed air contamination. Except as expressly admitted, Boeing denies the allegations in paragraph 46.

47. Boeing has now opted to install CHOC converters on some of its bleed airplanes, starting in the 2021 timeframe, a decision that comes too late to save the Plaintiff.

**ANSWER:** Boeing admits that a CHOC converter will be available as an option on its 777X aircraft, primarily for the purpose of reducing ground odors from ambient air in the airport environment. Except as expressly admitted, Boeing denies the allegations in paragraph 47.

48. ***Boeing failed to design, install or implement sensors.*** Boeing's planes have more than fifty sensors onboard and many of them trigger warnings for the pilots in-flight. But Boeing has never installed a sensor to warn of a contaminated air event. This is because Boeing's management refused to fund the research and development efforts necessary to develop and implement such technology.

**ANSWER:** Boeing admits that Boeing's aircraft have sensors onboard that trigger warnings for pilots in flight. Boeing further answers that even though researchers working with numerous government, academic, and industry groups have consistently concluded that the scientific evidence is insufficient to establish any causal link between cabin air quality and long-term or serious health effects, Boeing has monitored the state of the art with respect to air quality with the ultimate goal of enhancing passenger and flight crew comfort without compromising flight safety and has, over the years, evaluated and tested prototype devices that are intended to detect, eliminate, and/or reduce contamination on the rare occasions when it occurs. At the time



the subject aircraft was designed, assembled, and delivered, the state of the art had not progressed to the point where sensors to identify bleed air contaminants had been developed or shown to be reliable or maintainable in a commercial aircraft environment. Nor have such sensors been successfully validated for use on commercial pressurized aircraft even today, although industry-wide initiatives to evaluate new technologies are ongoing. Even after such validation, sensors would still need to be demonstrated as safe and airworthy for use on commercial pressurized aircraft before being certified. To Boeing's knowledge, currently no certified commercial jet transport aircraft has a bleed air system that uses sensors to identify bleed air contamination. Except as expressly admitted, Boeing denies the allegations in paragraph 48.

49. A pilot's ability to detect a contaminated air event in-flight is important because, in the cockpit, there is a simple switch that allows the pilot to shut off inflowing air from either engine. If the pilot knows contaminants are entering the air supply because of issues from a specific engine, with just a flip of a switch, the pilot can shut down the air flow on that side of the plane and protect passengers and crew from the toxins.

**ANSWER:** Boeing cannot admit or deny the allegations in paragraph 49 because they are too vague and indefinite to permit a response. Boeing further answers that even though researchers working with numerous government, academic, and industry groups have consistently concluded that the scientific evidence is insufficient to establish any causal link between cabin air quality and long-term or serious health effects, Boeing has monitored the state of the art with respect to air quality with the ultimate goal of enhancing passenger and flight crew comfort without compromising flight safety and has, over the years, evaluated and tested prototype devices that are intended to detect, eliminate, and/or reduce contamination on the rare occasions when it occurs. At the time the subject aircraft was designed, assembled, and delivered, the state of the art had not progressed to the point where sensors to identify bleed air contaminants had been developed or shown to be reliable or maintainable in a commercial aircraft environment. Nor have such sensors

been successfully validated for use on commercial pressurized aircraft even today, although industry-wide initiatives to evaluate new technologies are ongoing. Even after such validation, sensors would still need to be demonstrated as safe and airworthy for use on commercial pressurized aircraft before being certified. To Boeing's knowledge, currently no certified commercial jet transport aircraft has a bleed air system that uses sensors to identify bleed air contamination.

50. While pilots have access to pure oxygen masks in the cockpit, and pilots must put them on during contaminated air events to prevent incapacitation, there is no such protection available for passengers and flight attendants. The masks that fall from the overhead compartment in the cabin allow for only 4-15 minutes of oxygen. Sensors are thus important to provide an early warning so pilots can block contaminated air from entering the cabin.

**ANSWER:** Boeing admits that pilots have access to oxygen masks in the flight deck and that passengers and flight attendants also have access to supplemental oxygen. Boeing further answers that even though researchers working with numerous government, academic, and industry groups have consistently concluded that the scientific evidence is insufficient to establish any causal link between cabin air quality and long-term or serious health effects, Boeing has monitored the state of the art with respect to air quality with the ultimate goal of enhancing passenger and flight crew comfort without compromising flight safety and has, over the years, evaluated and tested prototype devices that are intended to detect, eliminate, and/or reduce contamination on the rare occasions when it occurs. At the time the subject aircraft was designed, assembled, and delivered, the state of the art had not progressed to the point where sensors to identify bleed air contaminants had been developed or shown to be reliable or maintainable in a commercial aircraft environment. Nor have such sensors been successfully validated for use on commercial pressurized aircraft even today, although industry-wide initiatives to evaluate new technologies are ongoing. Even after such validation, sensors would still need to be demonstrated as safe and

airworthy for use on commercial pressurized aircraft before being certified. To Boeing's knowledge, currently no certified commercial jet transport aircraft has a bleed air system that uses sensors to identify bleed air contamination. Except as expressly admitted, the allegations in paragraph 50 are too vague and indefinite to permit a response. To the extent a response is required, Boeing denies the allegations in paragraph 50.

51. Pilots want sensors as they consider contaminated air events to be "safety" issues and do not want "passengers used as guinea pigs in seats." The Airline Pilots Association notes that the development and installation of sensors for guarding against toxic cabin air events is "[t]he single most important safety item" for pilots.

**ANSWER:** Boeing denies the characterization of any referenced document or statement to the extent the document or statement's content, purpose, and context contradict Plaintiffs' selective quotation and portrayal of it. Boeing further answers that even though researchers working with numerous government, academic, and industry groups have consistently concluded that the scientific evidence is insufficient to establish any causal link between cabin air quality and long-term or serious health effects, Boeing has monitored the state of the art with respect to air quality with the ultimate goal of enhancing passenger and flight crew comfort without compromising flight safety and has, over the years, evaluated and tested prototype devices that are intended to detect, eliminate, and/or reduce contamination on the rare occasions when it occurs. At the time the subject aircraft was designed, assembled, and delivered, the state of the art had not progressed to the point where sensors to identify bleed air contaminants had been developed or shown to be reliable or maintainable in a commercial aircraft environment. Nor have such sensors been successfully validated for use on commercial pressurized aircraft even today, although industry-wide initiatives to evaluate new technologies are ongoing. Even after such validation, sensors would still need to be demonstrated as safe and airworthy for use on commercial

pressurized aircraft before being certified. To Boeing's knowledge, currently no certified commercial jet transport aircraft has a bleed air system that uses sensors to identify bleed air contamination. Except as expressly admitted, Boeing is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 51, and therefore, denies the same.

52. The flight crew unions also want sensors. The FAA wants sensors. Industry organizations such as ASHRAE have demanded sensors. Independent scholarly organizations like the National Research Council recommend sensors.

**ANSWER:** Boeing answers that even though researchers working with numerous government, academic, and industry groups have consistently concluded that the scientific evidence is insufficient to establish any causal link between cabin air quality and long-term or serious health effects, Boeing has monitored the state of the art with respect to air quality with the ultimate goal of enhancing passenger and flight crew comfort without compromising flight safety and has, over the years, evaluated and tested prototype devices that are intended to detect, eliminate, and/or reduce contamination on the rare occasions when it occurs. At the time the subject aircraft was designed, assembled, and delivered, the state of the art had not progressed to the point where sensors to identify bleed air contaminants had been developed or shown to be reliable or maintainable in a commercial aircraft environment. Nor have such sensors been successfully validated for use on commercial pressurized aircraft even today, although industry-wide initiatives to evaluate new technologies are ongoing. Even after such validation, sensors would still need to be demonstrated as safe and airworthy for use on commercial pressurized aircraft before being certified. To Boeing's knowledge, currently no certified commercial jet transport aircraft has a bleed air system that uses sensors to identify bleed air contamination.

Except as expressly admitted, the allegations in paragraph 52 are too vague and indefinite to permit a response. To the extent a response is required, Boeing denies the allegations in paragraph 52.

53. Although a number of sensors have been developed and approved for use in flight, Boeing steadfastly refuses to install them. Boeing's engineers admit that one reason for Boeing's reticence is that Boeing fears the information captured by those sensors (*i.e.*, exactly what toxins were actually present during an event and at what levels) could be used against Boeing in litigation. To protect itself, Boeing is willing to risk the safety of passengers and flight crew.

**ANSWER:** Boeing denies the characterization of any referenced document or statement to the extent the document or statement's content, purpose, and context contradict Plaintiffs' selective quotation and portrayal of it. Boeing also answers that at the time the subject aircraft was designed, assembled, and delivered, the state of the art had not progressed to the point where sensors to identify bleed air contaminants had been developed or shown to be reliable or maintainable in a commercial aircraft environment. Nor have such sensors been successfully validated for use on commercial pressurized aircraft even today, although industry-wide initiatives to evaluate new technologies are ongoing. Even after such validation, sensors would still need to be demonstrated as safe and airworthy for use on commercial pressurized aircraft before being certified. To Boeing's knowledge, currently no certified commercial jet transport aircraft has a bleed air system that uses sensors to identify bleed air contamination. Except as expressly admitted, Boeing denies the allegations in paragraph 53.

54. Boeing has long known that its bleed air system is defectively designed. Boeing is aware that safety measures exist or could be developed to mitigate or eliminate the danger. Boeing has made affirmative and intentional decisions *not* to investigate, develop or employ those measures.

**ANSWER:** Boeing denies the allegations in paragraph 54.

55. Boeing has ample resources to investigate, research, develop and implement safer alternatives. In Boeing's 2018 Annual Report, Defendant reported annual revenue of \$101.1 billion. Despite these resources, the Boeing aircraft at issue had a defectively designed bleed air

system, was not equipped with appropriate converters or filters to remove air contaminants and did not have a sensor to warn the flight crew. Further, Boeing provided the flight crew with no training on how to handle a contaminated air incident or how to isolate the source of the air contamination so such contamination could be reduced, avoided or stopped.

**ANSWER:** Answering the second sentence of paragraph 55, Boeing answers that the document speaks for itself. Answering further, Boeing states that even though researchers working with numerous government, academic, and industry groups have consistently concluded that the scientific evidence is insufficient to establish any causal link between cabin air quality and long-term or serious health effects, Boeing has, over the years, monitored the state of the art with respect to air quality with the ultimate goal of enhancing passenger and flight crew comfort without compromising flight safety. The Federal Aviation Administration and other regulators worldwide have carefully reviewed and analyzed the design of bleed air systems for Boeing aircraft (as well as the bleed air designs of other manufacturers' aircraft) and certified them as safe and airworthy. Except as expressly admitted, Boeing denies the allegations in paragraph 55.

56. Boeing knew that cabin air could become contaminated, knew that such contamination could cause health problems and knew that safer alternatives were available that were technologically available and economically feasible. Yet Boeing did not redesign or retrofit the subject aircraft to eliminate or reduce these hazardous events.

**ANSWER:** Answering paragraph 56, Boeing states that with proper maintenance on the bleed air system, and on the engines and auxiliary power unit that provide air to that system, the risk of any contamination is minimized. In addition, extensive scientific air-quality research completed to date by government agencies, independent researchers, universities, and industry has shown that contaminant levels in cabin air are generally low and consistently comply with applicable health and safety standards. Researchers working with numerous government, academic, and industry groups have consistently concluded that the scientific evidence is

insufficient to establish any causal link between bleed air contamination and long-term chronic or serious health issues.

Boeing admits that it has monitored the state of the art with respect to air quality with the ultimate goal of enhancing passenger and flight crew comfort without compromising flight safety. Boeing has, over the years, evaluated and tested prototype devices that are intended to detect, eliminate, and/or reduce contamination on the rare occasions when it occurs. As new devices are designed, Boeing will continue to evaluate their utility.

At the time the subject aircraft was designed, assembled, and delivered, the state of the art had not progressed to the point where sensors to identify bleed air contaminants had been developed or shown to be reliable or maintainable in a commercial aircraft environment. Nor have such sensors been successfully validated for use on commercial pressurized aircraft even today, although industry-wide initiatives to evaluate new technologies are ongoing. Even after such validation, sensors would still need to be demonstrated as safe and airworthy for use on commercial pressurized aircraft before being certified. To Boeing's knowledge, currently no certified commercial jet transport aircraft has a bleed air system that uses sensors to identify bleed air contamination.

Except as expressly admitted, Boeing denies the allegations in paragraph 56.

57. Rather than admit the truth about air cabin contamination, Boeing instead deliberately misrepresented the safety of its aircraft. In 1995, for example, Boeing represented at the Aeromedical Medical Association annual meeting that the ECS or Environmental Control System of "today's jetliner is carefully engineered to provide superior cabin air quality."

**ANSWER:** Boeing denies the allegations in the first sentence of paragraph 57. In addition, Boeing denies that it is a misrepresentation to state that "today's jetliner is carefully

engineered to provide superior cabin air quality.” This statement is true. Boeing otherwise admits the allegations in paragraph 57.

58. By 1996, Boeing knew that airlines, including United Airlines, had “expressed concern with bleed air contaminants.” Rather than be truthful, Boeing instead told the airlines that the “air quality contaminants meet health and safety guidelines” and acute symptoms were caused by warmer temperatures and “control of the heat in the cabin,” rather than toxins.

**ANSWER:** Boeing denies the characterization of any referenced document or statement to the extent the document or statement’s content, purpose, and context contradict Plaintiffs’ selective quotation and portrayal of it. Boeing denies any implication that it made any statements that were untrue. Except as expressly admitted, Boeing denies the allegations in paragraph 58.

59. In 2000, Boeing provided affirmative representations to United Airlines flight crew in an article called “Partners in Safety: Cabin Air Quality.” Boeing reassured United flight attendants that their health was “always a top priority” and that symptoms experienced by flight attendants such as “fatigue, headaches, dizziness, light-headedness, nausea, sore throat and illness” was often mistakenly attributed to cabin air quality but flight crew should instead look to other causal factors such as altitude, jet lag, turbulence, dehydration and stress. Boeing had a prime opportunity to educate United flight crew about this safety hazard and, instead, Boeing misrepresented, downplayed and minimized the danger.

**ANSWER:** Boeing denies the characterization of the referenced document to the extent the document’s content, purpose, and context contradict Plaintiffs’ selective quotation and portrayal of it. Boeing denies any implication that it made any statements that were untrue. Except as expressly admitted, Boeing denies the allegations in paragraph 59.

60. Boeing consistently represented that cabin air quality studies did not indicate that contaminants were affecting cabin air quality. Boeing thus encouraged airlines and crew to look at “multiple factors” as the cause of poor cabin air quality. Further, Boeing reassured flight crew that there were “no additional precautions” that could be taken to improve air quality. In reality, Boeing could have, and should have, installed converters and sensors in its bleed air system planes.

**ANSWER:** Boeing denies the characterization of any referenced document or statement to the extent the document or statement’s content, purpose, and context contradict Plaintiffs’



selective quotation and portrayal of it. Boeing denies any implication that it made any statements that were untrue. Answering further, Boeing states that it has monitored the state of the art with respect to air quality with the ultimate goal of enhancing passenger and flight crew comfort without compromising flight safety. Boeing has, over the years, evaluated and tested prototype devices that are intended to detect, eliminate, and/or reduce contamination on the rare occasions when it occurs. As new devices are designed, Boeing will continue to evaluate their utility.

At the time the subject aircraft was designed, assembled, and delivered, the state of the art had not progressed to the point where sensors to identify bleed air contaminants or converters had been developed or shown to be reliable or maintainable in a commercial aircraft environment. Nor have such sensors been successfully validated for use on commercial pressurized aircraft even today, although industry-wide initiatives to evaluate new technologies are ongoing. Even after such validation, sensors would still need to be demonstrated as safe and airworthy for use on commercial pressurized aircraft before being certified. To Boeing's knowledge, currently no certified commercial jet transport aircraft has a bleed air system that uses sensors to identify bleed air contamination.

Except as expressly admitted, Boeing denies the allegations in paragraph 60.

61. Boeing executives have affirmatively represented that Boeing aircraft are safe. For example, in 2011, Boeing engineer David Space discussed cabin air quality with various airlines and stated that Boeing was committed to providing a "safe, healthy, flying environment." Boeing also represented that its air delivery system "is carefully engineered to provide superior cabin air quality."

**ANSWER:** Boeing denies that David Space is an executive and denies the characterization of any referenced document to the extent the document's content, purpose, and context contradict Plaintiffs' selective quotation and portrayal of it. Boeing otherwise admits the allegations in paragraph 61 and denies any implication that any untruthful statements were made.

62. By reason of Boeing's decisions, the subject flight attendant crew were exposed to contaminated bleed air, the environmental control system on the subject aircraft lacked converters or filters which would have reduced or eliminated the toxic fumes and there was no sensor or warning on the subject aircraft to warn the flight crew so remediation action could be taken.

**ANSWER:** Boeing denies the allegations in paragraph 62.

63. By reason of Boeing's decisions, the subject flight attendants were not properly warned of the health dangers of contaminated cabin air and were ill equipped to respond to this incident.

**ANSWER:** Boeing denies the allegations in paragraph 63.

64. Boeing knew of the defects in the subject aircraft, knew that because of such defects the cabin air was not free from harmful or hazardous concentrations of contaminants, was on notice that the defects were likely to cause injury yet failed to adequately warn or instruct on the aircraft defects, failed to remedy the known defect in the subject aircraft, failed to discover the dangerous conditions when such could have been discovered and / or failed to take affirmative action to avoid injury to Plaintiffs and others.

**ANSWER:** Boeing denies the allegations in paragraph 64.

65. Boeing manufactured, designed, promoted, marketed and sold the subject aircraft. At the time the subject aircraft left Boeing's custody and control, it was defective and unreasonably dangerous because:

- a. Its design rendered the aircraft unreasonably dangerous.
- b. The danger of this design was beyond that contemplated by the ordinary consumer with ordinary knowledge common to the community as to its characteristics.
- c. The benefits of this design are outweighed by the design's inherent risk of danger.

**ANSWER:** To the extent that the allegations in paragraph 65 assert legal arguments or conclusions of law, no answer is required. To the extent an answer is required, Boeing denies the allegations in paragraph 65.

66. Boeing's design of the subject aircraft made such aircraft unreasonably dangerous in one of more of the following respects:

- a. The subject aircraft's ventilation system allows bleed air, which can become contaminated with dangerous toxins, to enter the cabin and cockpit air.
- c. The subject aircraft lacked adequate air quality monitors, sensors or alarms.
- d. The subject aircraft provides no safeguards or systems so the flight crew could identify the source of the contaminated air or mitigate or prevent contamination of the cabin air.

- e. The subject aircraft lacked adequate or appropriate converters or filters to reduce, remove or eliminate bleed air contamination.

**ANSWER:** To the extent that the allegations in paragraph 66 assert legal arguments or conclusions of law, no answer is required. To the extent an answer is required, Boeing denies the allegations in paragraph 66.

67. By reason of the foregoing, the subject aircraft was unreasonably dangerous and defective, and Boeing is strictly liable for the damages sustained by the Plaintiffs.

**ANSWER:** To the extent that the allegations in paragraph 67 assert legal arguments or conclusions of law, no answer is required. To the extent an answer is required, Boeing denies the allegations in paragraph 67.

WHEREFORE, Plaintiffs request judgment against Defendant THE BOEING COMPANY in an amount of money in excess of FIFTY THOUSAND DOLLARS (\$50,000.00.)

**ANSWER:** Answering the prayer, Boeing denies that Plaintiffs are entitled to any relief whatsoever.

68. Plaintiffs re-allege all previous paragraphs as if set forth verbatim herein.

**ANSWER:** Answering paragraph 68, Boeing incorporates by reference its previous answers as though fully set forth herein.

69. Boeing failed to adequately warn of the danger of toxic cabin air and / or failed to adequately instruct on the proper use of its aircraft to avoid cabin air contamination in one of more of the following respects:

- a. The subject aircraft lacked proper warnings regarding the potential of the air supply system to become contaminated.
- b. The subject aircraft lacked proper warnings regarding the identification or detection of contaminated air.
- c. The subject aircraft lacked proper warnings regarding the health dangers of exposure to contaminated air.
- d. Defendants failed to adequately warn or instruct on how to respond, contain or reduce the danger of contaminated air events.

**ANSWER:** To the extent that the allegations in paragraph 69 assert legal arguments or conclusions of law, no answer is required. To the extent an answer is required, Boeing denies the allegations in paragraph 69.

70. By reason of the foregoing, the subject aircraft was unreasonably dangerous and defective, and Boeing is strictly liable for the damages sustained by the Plaintiffs.

**ANSWER:** To the extent that the allegations in paragraph 70 assert legal arguments or conclusions of law, no answer is required. To the extent an answer is required, Boeing denies the allegations in paragraph 70.

WHEREFORE, Plaintiffs request judgment against Defendant THE BOEING COMPANY in an amount of money in excess of FIFTY THOUSAND DOLLARS (\$50,000.00).

**ANSWER:** Answering the prayer, Boeing denies that Plaintiffs are entitled to any relief whatsoever.

71. Plaintiffs re-allege all previous paragraphs as if set forth verbatim herein.

**ANSWER:** Answering paragraph 71, Boeing incorporates by reference its previous answers as though fully set forth herein.

72. At all times relevant hereto, Boeing owed a duty to the Plaintiffs to use reasonable care in designing, manufacturing, assembling, testing, maintaining, servicing, selling, marketing, promoting and providing warnings or instructions about the subject aircraft so as not to cause Plaintiffs severe personal injuries and pain and suffering.

**ANSWER:** To the extent that the allegations in paragraph 72 assert legal arguments or conclusions of law, no answer is required. To the extent an answer is required, Boeing denies the allegations in paragraph 72.

73. Boeing negligently breached its duty of care owed to the Plaintiffs through one or more of the following negligent acts and omissions, when Boeing:

- a. Negligently designed, manufactured, assembled and sold the subject aircraft such that its ventilation system allowed contaminated bleed air to enter the breathing zone of the aircraft.
- b. Negligently designed, manufactured, assembled and sold the subject aircraft without an adequate or appropriate air quality monitor, sensor or alarm to detect bleed air contamination, to allow the flight crew to identify the source of such contamination and / or permit the flight crew to mitigate, reduce or prevent fume events.
- c. Negligently designed, manufactured, assembled and sold the subject aircraft without adequate or appropriate converters or filters to protect cabin air from contamination.
- d. Negligently designed, manufactured, assembled and sold the subject aircraft without proper warnings or instructions regarding the potential of the air supply system to become contaminated or the danger of exposure to such contaminated air.
- e. Negligently designed, manufactured, assembled and sold the subject aircraft without knowing the chemical composition of heated aviation jet engine lubricating oil or hydraulic fluid or the by-products of such as well as the toxicity of these toxins.
- f. Negligently designed, manufactured, assembled and sold the subject aircraft without knowing what chemicals or byproducts are created when aviation jet engine lubricating oil or hydraulic fluid is heated to temperatures consistent with those experienced in the engines.
- g. Negligently designed, manufactured, assembled and sold the subject aircraft without properly testing heated aviation jet engine lubricating oil or hydraulic fluid to fully understand the toxic chemicals and by-products of such.
- h. Negligently designed, manufactured, assembled and sold the subject aircraft without knowing the quality of the bleed cabin air.
- i. Negligently failed to incorporate a proper and effective environmental control system or air supply on the subject aircraft.
- k. Negligently failed to properly test the subject aircraft before selling or distributing it;
- l. Negligently failed to adequately maintain, service, retrofit and/or inspect the subject aircraft or add the needed safer alternatives.
- m. Negligently represented, promoted and marketed its aircraft as being safe and failed to provide adequate warnings and instructions about its aircraft; and
- n. Was otherwise negligent and careless.

**ANSWER:** To the extent that the allegations in paragraph 73 assert legal arguments or conclusions of law, no answer is required. To the extent an answer is required, Boeing denies the allegations in paragraph 73.

74. Boeing owed a duty to adequately warn and instruct about the dangers of its aircraft of which it knew, or, in the exercise of ordinary care, should have known, at the time the product left Boeing's control.

**ANSWER:** To the extent that the allegations in paragraph 74 assert legal arguments or conclusions of law, no answer is required. To the extent an answer is required, Boeing admits that it owes the duties that are imposed by the applicable law. Except as expressly admitted, the allegations in paragraph 74 are denied.

75. Boeing negligently failed to warn of the defective and unreasonably dangerous conditions of the subject aircraft.

**ANSWER:** To the extent that the allegations in paragraph 75 assert legal arguments or conclusions of law, no answer is required. To the extent an answer is required, Boeing denies the allegations in paragraph 75.

76. Boeing misrepresented the safety of its aircraft and the dangers of air cabin contamination.

**ANSWER:** To the extent that the allegations in paragraph 76 assert legal arguments or conclusions of law, no answer is required. To the extent an answer is required, Boeing denies the allegations in paragraph 76.

77. As a direct and proximate result of one or more of the aforesaid negligent acts and omissions of Boeing, Boeing caused Plaintiffs to suffer personal injuries and damages.

**ANSWER:** To the extent that the allegations in paragraph 77 assert legal arguments or conclusions of law, no answer is required. To the extent an answer is required, Boeing denies the remaining allegations in paragraph 77.

WHEREFORE, Plaintiffs request judgment against Defendant THE BOEING COMPANY in an amount of money in excess of FIFTY THOUSAND DOLLARS (\$50,000.00).

**ANSWER:** Answering the prayer, Boeing denies that Plaintiffs are entitled to any relief whatsoever.

78. Plaintiffs re-allege all previous paragraphs as if set forth verbatim herein.

**ANSWER:** Boeing filed a partial motion to dismiss Counts IV and V of Plaintiffs' Complaint, and respectfully incorporates its contents herein. No further answer to this allegation is required. *See* Dkt. No. 14.

79. Boeing, having undertaken to design, create, research, develop, manufacture, market, promote, lease and sell its aircraft, owed a duty to provide a safe and appropriate air system as well as accurate and complete information regarding its aircraft.

**ANSWER:** Boeing filed a partial motion to dismiss Counts IV and V of Plaintiffs' Complaint, and respectfully incorporates its contents herein. No further answer to this allegation is required. *See* Dkt. No. 14.

80. Instead, Boeing provided affirmative misrepresentations or omissions and falsely and deceptively sought to create the image and impression that the air cabin in its aircraft was safe.

**ANSWER:** Boeing filed a partial motion to dismiss Counts IV and V of Plaintiffs' Complaint, and respectfully incorporates its contents herein. No further answer to this allegation is required. *See* Dkt. No. 14.

81. As described in some detail above, Boeing purposefully concealed, failed to disclose, misstated, downplayed, and understated the health hazards and risks associated with cabin air contamination on its aircraft.

**ANSWER:** Boeing filed a partial motion to dismiss Counts IV and V of Plaintiffs' Complaint, and respectfully incorporates its contents herein. No further answer to this allegation is required. *See* Dkt. No. 14.

82. Boeing deceived flight crew, flight attendants and passengers by concealing, misstating, and downplaying the incidence rate, seriousness and health effects of fume events.

**ANSWER:** Boeing filed a partial motion to dismiss Counts IV and V of Plaintiffs' Complaint, and respectfully incorporates its contents herein. No further answer to this allegation is required. *See* Dkt. No. 14.

83. Boeing falsely and deceptively kept relevant and material information from flight crew, flight attendants and passengers and minimized concerns regarding the safety of its aircraft air system.

**ANSWER:** Boeing filed a partial motion to dismiss Counts IV and V of Plaintiffs' Complaint, and respectfully incorporates its contents herein. No further answer to this allegation is required. *See* Dkt. No. 14.

84. Boeing did not properly study nor report accurately the results of its analysis of cabin air contamination.

**ANSWER:** Boeing filed a partial motion to dismiss Counts IV and V of Plaintiffs' Complaint, and respectfully incorporates its contents herein. No further answer to this allegation is required. *See* Dkt. No. 14.

85. As a direct and proximate result of one or more of the aforesaid fraudulent acts of Boeing, Boeing caused Plaintiffs to suffer severe personal injuries and damages.

**ANSWER:** Boeing filed a partial motion to dismiss Counts IV and V of Plaintiffs' Complaint, and respectfully incorporates its contents herein. No further answer to this allegation is required. *See* Dkt. No. 14.

WHEREFORE, Plaintiffs request judgment against Defendant THE BOEING COMPANY in an amount of money in excess of FIFTY THOUSAND DOLLARS (\$50,000.00).



**ANSWER:** Boeing filed a partial motion to dismiss Counts IV and V of Plaintiffs' Complaint, and respectfully incorporates its contents herein. No further answer to this allegation is required. *See* Dkt. No. 14.

86. The Plaintiffs' injuries were caused by the subject Boeing aircraft that they were on at the time of each of their exposures.

**ANSWER:** Boeing filed a partial motion to dismiss Counts IV and V of Plaintiffs' Complaint, and respectfully incorporates its contents herein. No further answer to this allegation is required. *See* Dkt. No. 14.

87. The Plaintiffs are foreseeable end users of Boeing's aircraft.

**ANSWER:** Boeing filed a partial motion to dismiss Counts IV and V of Plaintiffs' Complaint, and respectfully incorporates its contents herein. No further answer to this allegation is required. *See* Dkt. No. 14.

88. Defendant Boeing had a duty to prevent the Plaintiffs from being harmed by its aircraft.

**ANSWER:** Boeing filed a partial motion to dismiss Counts IV and V of Plaintiffs' Complaint, and respectfully incorporates its contents herein. No further answer to this allegation is required. *See* Dkt. No. 14.

89. The subject aircraft, as well as the entire Environmental Control System (ECS) and bleed air system of this plane, was under Defendant Boeing's exclusive control and management.

**ANSWER:** Boeing filed a partial motion to dismiss Counts IV and V of Plaintiffs' Complaint, and respectfully incorporates its contents herein. No further answer to this allegation is required. *See* Dkt. No. 14.

90. Defendant Boeing exclusively decided whether or not to affix its aircraft with sensors and / or converters and no other entity could do so without its authority.

**ANSWER:** Boeing filed a partial motion to dismiss Counts IV and V of Plaintiffs' Complaint, and respectfully incorporates its contents herein. No further answer to this allegation is required. *See* Dkt. No. 14.

91. Defendant Boeing had a duty to the Plaintiffs to anticipate or guard against the [sic] contaminated air event which caused the Plaintiffs' injuries.

**ANSWER:** Boeing filed a partial motion to dismiss Counts IV and V of Plaintiffs' Complaint, and respectfully incorporates its contents herein. No further answer to this allegation is required. *See* Dkt. No. 14.

92. The occurrence which injured the Plaintiffs is such that, in the ordinary course of things, it would not have happened if Boeing had used proper care to affix sensors and / or converters to the aircraft.

**ANSWER:** Boeing filed a partial motion to dismiss Counts IV and V of Plaintiffs' Complaint, and respectfully incorporates its contents herein. No further answer to this allegation is required. *See* Dkt. No. 14.

93. Had Boeing installed air quality sensors and/ or appropriate converters on the subject aircraft such devices would have warned the crew so mitigating efforts could have been taken. Boeing could have removed or converted harmful contaminants from the bleed air system and could have minimized, reduced or eliminated Plaintiffs' exposure to contaminated air.

**ANSWER:** Boeing filed a partial motion to dismiss Counts IV and V of Plaintiffs' Complaint, and respectfully incorporates its contents herein. No further answer to this allegation is required. *See* Dkt. No. 14.

94. The fume event itself affords reasonable evidence that it arose from want of proper care by Defendant Boeing.

**ANSWER:** Boeing filed a partial motion to dismiss Counts IV and V of Plaintiffs' Complaint, and respectfully incorporates its contents herein. No further answer to this allegation is required. *See* Dkt. No. 14.

WHEREFORE, Plaintiffs request judgment against Defendant THE BOEING COMPANY in an amount of money in excess of FIFTY THOUSAND DOLLARS (\$50,000.00).

**ANSWER:** Boeing filed a partial motion to dismiss Counts IV and V of Plaintiffs' Complaint, and respectfully incorporates its contents herein. No further answer to this allegation is required. *See* Dkt. No. 14.

95. Boeing's conduct caused Plaintiffs short term and long term health problems and injuries including pain, suffering, mental anguish, emotional distress, physical impairment, loss of normal enjoyment of life, medical bills and expenses as well as loss of wage earning capacity, in the past as well as reasonably anticipated in the future.

**ANSWER:** Boeing denies the allegations in paragraph 95.

96. Plaintiffs hereby demand a jury trial on all claims so triable in this action.

**ANSWER:** Plaintiffs' demand for a jury trial is a legal conclusion to which no answer is required. To the extent an answer is required, Boeing denies that Plaintiffs assert any triable claims and therefore deny that this case should go to trial.

WHEREFORE, Plaintiffs pray for the entry of a judgement in their favor and against Defendant Boeing, together with costs, attorney fees and such other damages as may be allowed by law.

Wherefore, Boeing denies that Plaintiffs are entitled to any of the relief, including that requested in their Prayer for Relief.

### **AFFIRMATIVE DEFENSES**

Boeing asserts the following Affirmative Defenses without prejudice to the denials in this Answer, and without admitting any allegations of the Complaint not otherwise admitted. In

asserting these defenses, Boeing does not assume any burden of proof, persuasion, or production with respect to any issue where the applicable law places the burden upon Plaintiffs.

To the extent Boeing invokes the laws of specific jurisdictions in its Affirmative Defenses, it does so to preserve all potentially applicable defenses, in compliance with Rule 8(c), and without waiving, but rather expressly reserving, the right to raise arguments concerning the governing law as appropriate in the future and assert defenses that may be available under the laws of any jurisdiction that the Court determines to apply.

The below Affirmative Defenses are asserted based on Boeing's present knowledge and belief, without the benefit of discovery. Boeing reserves the right to add other affirmative defenses which it deems necessary to its defense during or upon the conclusion of investigation and discovery.

**FIRST DEFENSE – SOLE PROXIMATE CAUSE AND  
COMPARATIVE NEGLIGENCE**

1. The maintainers and operators of the subject aircraft were at all relevant times entities and persons over whom Boeing had no control or right of control.

2. Boeing assembled and delivered the subject aircraft on May 17, 1991. The flight in question during which Plaintiffs were allegedly harmed occurred on January 19, 2018—nearly 27 years later.

3. Upon information and belief, Plaintiffs' damages, if any, may have been caused by others, including but not limited to the maintainers and operators of the subject aircraft, or the manufacturers and sellers of equipment added to the aircraft that Boeing did not design, manufacture, or sell.

4. Judgment, if any, against Boeing should be precluded entirely, or diminished to an amount that represents Boeing's degree of negligence, fault, or responsibility, if any.

## **SECOND DEFENSE – CODE COMPLIANCE**

5. The subject aircraft and all components of it were certified as airworthy by the Federal Aviation Administration (“FAA”) and complied with all applicable codes, standards, and regulations of the United States and agencies thereof at the time it was delivered.

6. All applicable federal and state statutes and administrative regulations existing at the time the subject aircraft and all components of it were manufactured and all applicable standards for design, inspection, testing, warning, and manufacture were complied with.

7. Boeing’s compliance bars some or all of Plaintiffs’ claims.

## **THIRD DEFENSE – FEDERAL PREEMPTION**

8. Plaintiffs’ claims are preempted by the comprehensive and detailed airworthiness code of the United States government. The aircraft in question was a Boeing model 767-322ER, FAA registration number N644UA, which Boeing sold and delivered to United Airlines on May 17, 1991.

9. Prior to that sale, the FAA approved the design of the model 767 aircraft through the issuance of a “type certificate.” The issuance of the type certificate confirmed the airworthiness of the category of aircraft and that the design satisfied hundreds of detailed federal regulations, including several setting requirements for cabin air ventilation and flight crew alerts. A type certificate remains in effect “until surrendered, suspended, revoked, or a termination date is otherwise established by the FAA.” 14 C.F.R. § 21.51. A manufacturer needs FAA approval to make any change to a type-certificated design. *Id.* § 21.97.

10. The FAA additionally certified that the particular aircraft “conform[ed] to its type certificate and, after inspection, is in condition for safe operation.” 49 U.S.C. § 44704(d)(1). It is unlawful to operate an aircraft without such a certificate. *See* 49 U.S.C. § 44711(a)(1). Any

potentially dangerous defects discovered during the course of operation must be reported to the FAA. 14 C.F.R. § 21.3.

11. The Federal Aviation Act and regulations promulgated thereunder, including but not limited to as described above, pervasively regulate and set standards for aircraft design and air quality that preempt state law aviation safety claims. The FAA certificates establish that the Boeing aircraft satisfied the federal standards.

12. Plaintiffs' claims seeking to hold Boeing to a different state law standard—and to manufacture an aircraft that differs from the design that the FAA has certified—are therefore preempted.

#### **FOURTH DEFENSE – FAILURE TO MITIGATE**

13. Plaintiffs' claims are barred in whole or in part because Plaintiffs may have failed to use reasonable efforts to mitigate their damages, if any, and failed to protect themselves from avoidable consequences.

#### **FIFTH DEFENSE – STATE OF THE ART**

14. Plaintiffs' claims are barred in whole or in part because the design of the subject aircraft and each component of it that was installed at the time of assembly and thereafter delivery from Boeing to United Airlines on May 17, 1991 was consistent with or exceeded the “state of the art” at the time.

#### **SIXTH DEFENSE – STATUTES OF LIMITATIONS AND/OR STATUTES OF REPOSE**

15. Plaintiffs' claims are barred in whole or in part by potentially applicable statutes of limitations and/or statutes of repose.

16. Plaintiffs claim they were injured when they were exposed to an alleged contaminated air event on January 19, 2018.

17. Plaintiffs filed this action on January 17, 2020.

18. But Boeing assembled the aircraft and thereafter sold and delivered it to United Airlines, the first user of the aircraft, on May 17, 1991.

19. Therefore, under the potentially applicable statutes of limitations and/or repose, Plaintiffs' injuries occurred outside of the acceptable time period in which an action could be brought for negligence and personal injury.

20. Further, under the potentially applicable statutes of limitations and/or repose, Plaintiffs failed to bring this action within the required time of years of the product's first delivery by Boeing, or within the required time of years of its sale, delivery, or leasing to its first user.

#### **SEVENTH DEFENSE – BENEFITS OUTWEIGH RISKS**

21. Plaintiffs' claims are barred in whole or in part because if Plaintiffs suffered damage as a result of the subject aircraft and any components thereof, the benefits of the subject aircraft and any components thereof outweigh the risk associated therewith, if any.

#### **EIGHTH DEFENSE – SOPHISTICATED USER**

22. Plaintiffs' claims are barred in whole or in part because the subject aircraft was intended for and sold to a knowledgeable and sophisticated user over whom Boeing had no control or right of control.

#### **NINTH DEFENSE – SUBSEQUENT REMEDIAL MEASURES**

23. Plaintiffs' claims are barred in whole or in part because evidence of subsequent remedial measures is not admissible to prove liability. *See* Federal Rule of Evidence 407.

**TENTH DEFENSE – *FORUM NON CONVENIENS***

24. Plaintiffs' claims are barred in whole or in part under the doctrine of *forum non conveniens*.

**PRAYER FOR RELIEF**

WHEREFORE, Boeing prays for judgment as follows on Plaintiffs' Complaint and on Boeing's Answer:

- A. Plaintiffs' Complaint be dismissed with prejudice and that Plaintiffs take nothing;
- B. That judgment be entered in favor of Boeing and against Plaintiffs;
- C. Awarding Boeing all reasonable expenses, including court costs and attorneys' fees, incurred by Boeing in connection with this action; and
- D. Awarding Boeing such other and further relief as the Court deems just and proper.



Dated: June 24, 2020

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Respectfully submitted,

By: /s/ Dan K. Webb

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*Attorneys for The Boeing Company*

**CERTIFICATE OF SERVICE**

I hereby certify that on June 24, 2020, I caused a true and correct copy of the foregoing to be filed via CM-ECF, and thereby served on all parties of record.

By: /s/ Joseph L. Motto  
Joseph L. Motto